In re Application of: Irun R. Cohen et al
Serial No.: 10/542,591
Filed: March 14, 2006
Office Action Mailing Date: March 18, 2009

Examiner: Edward Martello
Group Art Unit: 2628
Attorney Docket: 30070

REMARKS

Reconsideration of the above-identified application in view of the amendments above and the remarks following is respectfully requested.

Claims 1-33 are in this Application. Claims 13-33 have been withdrawn from consideration. Claims 1-10 and 12 have been rejected under 35 U.S.C. § 102. Claim 11 has been rejected under 35 U.S.C. § 103.

Claims 1, 6 and 12 have been amended herewith.

Objections to the Drawings

Figures 7b, 9, 10a, 10b, 11 and 13b are objected to as being too dark and unreadable. These Figures are replaced herewith with corresponding colored figures, where the clarity is much improved. A Petition for Color Drawings will soon follow under separate cover.

Amendments To The Claims

Rejections under 35 USC 101

The Examiner has rejected claim 1 and its dependencies on the grounds that it is not tied to a particular machine etc. The claim has been amended to define itself as being a computerized method.

35 U.S.C. § 102 Rejections

The Examiner rejected claims 1-10 and 12 under 35 U.S.C. §102 (b) as being anticipated by Katzenberger et al. The rejections of the Examiner are respectfully believed to have been overcome by virtue of the above amendments in light of the following arguments.

Katzenberg discloses a computer implemented system for scripting an animation sequence based on a collection of scripts, each representing one or more states. The scripting system creates an instance of a relevant script interpreter in response to an event. Scripts are used for encoding and controlling the animation, and each involve separate and piecemeal sequences of activities or primitives. The scripts do not provide an overall illustration of a system, or even an overall illustration of one object. If a new event is to be added, a new script has to be written.

By contrast, the present application discloses a complete behavior model (a reactive system) which specifies the behavior of the whole system within a single overall flow. A reactive system visualizes the concept of the system by using boxes and arrows. Such a reactive system can be implemented, for example by using Unified Modeling Language (UML) which is a language used in the art for identifying large systems.

Page 3 lines 15-18 states: "the present invention therefore preferably enables a reactive system to be connected to an animation tool, for producing true reactive animation." The same page line 21 states "the combination provides a vivid representation built on a rigorous, hard core model of the system under description."

The amended lines in claim 1 " providing a reactive model of system overall behavior; and creating animation primitives for animating said mode" reflect this difference.

In Katzenberger's solution, the scripts are coupled with the graphical objects and thus, can not work with an object which is implemented in a different environment. Paragraph 3 lines 24-25 in Katzenberg states: "The script interpreter instance is assigned to a graphical object (GOB) ". The present application, by contrast, provides a solution in which the animation tool and the reactive system tool are detached from each other and communicate via messages. Page 3 lines 15-27 cite: "The present invention therefore preferably enables a reactive engine to be connected to an animation tool, for producing true reactive animation... systems are simulated

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and represented by using two separate, detached environments". Claim 1 has been changed to reflect this feature by defining that the tools are detached.

The present application provides a reactive model of a system and animation primitives for animating the model such that upon detecting new events, the respective animation primitives are selected according to the model and according to the detected event. These primitives are combined to produce an overall animation. This method is defined in the amended claim 1. Such a method can model complicated systems and enables the adding of a new event simply and conveniently. When a new event is added it is merely necessary to associate the required elements of the model with the event. Page 20 lines 7-20 cite: "... visual landmarks are identified. Identification of visual landmarks is done on the model of the system. In the model, events (i.e. states) messages and attributes that are important to the visual representation are identified. .... In stage 760, visual landmarks are associated with states/ or state transitions." Thus the present invention is robust and can easily react to changes such as implementing new events or using a new animation tool, as opposed to Katzenberger's application.

Reactive models are known. However a difficulty with the reactive model is that, as a system flow, it does not look like the system it is modeling. The present invention allows the reactive model for the first time to be connected to an animation tool so that the flows in the reactive model can be visualized. Katzenberger does not have a reactive model and thus there is no suggestion in Katzenberger as to how a reactive model should be visualized.

By contrast the present claim provides a reactive model and provides for its visualization. It is therefore respectfully submitted that there is no teaching or suggestion in Katzenberger for:

A computer implemented method for producing animation of a system comprising:

In a first environment:

providing a reactive model of system overall behavior ; and

creating animation primitives for animating said model, using a first tool for implementing said animation primitives and a second tool for implementing said reactive model of system overall behavior, said second tool being detached from said first tool;

and

In a runtime environment:

detecting events associated with said system;

selecting respectively animation primitives according to said model and said events; and

combining together said respective animation primitives representing said detected events; thereby to create an overall animation.

Claims 2-10 and 12 depend from claim 1, and hence the present amendment is believed also to overcome the rejection of claims 2-10 and 12.

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35 U.S.C. § 103 Rejections

The Examiner rejected claim 11 under 35 U.S.C. §103(a) as being unpatentable over Katzenberger as applied above. Claim 11 is depend from claim 1, and hence the present amendment is believed also to overcome the rejection of claim 11.

In view of the above amendments and remarks it is respectfully submitted that claims 1-12 are now in condition for allowance. A prompt notice of allowance is respectfully and earnestly solicited.

Respectfully submitted,

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Date: September 17, 2009

Enclosures:

- Petition for Extension (Three Months)
- Formal Drawing Transmittal Sheet
- Complete Set of Replacement Drawing Sheets